

to be in condition for allowance. Accordingly, reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

I. CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 7, and 23 were rejected under 35 U.S.C. § 102 as being anticipated by U. S. Patent No. 5,644,399 to Hoshiyama. Reconsideration of these rejections is respectfully requested for at least the following reasons. By the above amendment, claims 1, 7, and 23 have been cancelled without prejudice or disclaimer, whereby the rejections thereof have been rendered moot.

II. REJECTION OF CLAIMS 1-16 UNDER 35 U.S.C. § 103

Claims 1-16 were rejected under 35 U.S.C. § 103 as unpatentable over Hoshiyama. Reconsideration and withdrawal of these rejections is requested for at least the following reasons. By the above amendment, claims 1-7, 12, and 14-16 have been cancelled without prejudice or disclaimer, with claims 8 and 13 being amended.

Independent claim 8 has been rewritten in independent form by the above amendment, including the limitations of cancelled claims 1 and 7, to recite an optical defect inspection system comprising an optical indicia device, wherein the optical indicia device comprises a generally planar ***transparent member movable with respect to the workpiece between a first position in a first plane, and a second position in a second plane***. The Office Action posits at page 3 that providing means to adjust the scale plate of Hoshiyama would have been obvious. However, in order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation in the references themselves, in the nature of the problem to be solved, or in the knowledge generally available to one skilled in the art to modify the reference or to combine references. MPEP § 2143.01, citing to In re Kotzab, 217 F.3d 1365, 55 USPQ2d 1313 (Fed. Cir. 2000); In re Fine, 837 F.2d 1071; 5 USPQ2D 1596 (Fed. Cir. 1988). Moreover, the showing of such suggestion or motivation must be clear and particular. In re Dembiczak, 175 F.3d 994; 50 USPQ2D 1614 (Fed. Cir. 1999). In

addition, there must be a reasonable expectation of success in making the proposed modification or combination. MPEP § 2143.02, See also Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120; 56 USPQ2D 1456 (Fed. Cir. 2000).

Applicants submit that no suggestion, motivation, or reasonable expectation of success exists for providing adjustment of the scale plate 4 of Hoshiyama, and that the mere statement in the Office Action that providing means to adjust the scale plate of Hoshiyama would have been obvious does not establish a *prima facie* case of obviousness.

Hoshiyama appears to be silent with respect to adjustability or repositioning of the scale plate 4 with respect to the article 2, wherein the vertical positioning appears fixed in the Y table of Figs. 1A and 5. In this regard, the scale plate 4 in Fig. 1A is vertically spaced from the article 2 by a distance "d" greater than a focus depth of the focusing system of the image sensor 3 (col. 3, lines 3-7). In Fig. 5, the scale 4A of the scale plate 4 is spaced from the article 2 by a fixed distance "d1" + "d2" (col. 5, lines 37-40). Thus, a person of ordinary skill in the art encountering the teachings of Hoshiyama would have no motivation and no reasonable expectation of success in providing a vertically adjustable scale plate in the apparatus of Hoshiyama.

Moreover, ***Hoshiyama appears to teach away from vertical adjustment of the relative spacing between the article 2 and the scale plate 4***, since Hoshiyama illustrate and describe fixed relative positioning thereof and provide reasons for the fixed spacings. Where a proposed modification or combination of the prior art would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP § 2143.01, citing to In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). A person of ordinary skill in the art would likely believe that adjustment of the vertical spacing of the article 2 and the scale plate 4 would render the resulting structure inoperable for its intended purpose because the text and drawings of Hoshiyama indicate that fixed spacing is important with respect to focus depth. Therefore, no

suggestion or motivation exists for the proposed modification of Hoshiyama and amended claim 8 is patentably distinct therefrom.

Claim 10 provides that the transparent member is generally ***laterally movable with respect to the optical path***, and claim 11 recites that the optical indicia device is ***movable between a first position in the optical path and a second position outside the optical path***, which features are not taught or suggested in Hoshiyama. Rather, Hoshiyama appears to teach only fixed relative positioning of the article 2 and the scale plate 4. Accordingly, Applicants submit that the features of amended independent claim 8 and claims 9-11 depending therefrom are non-obvious and patentably distinct from Hoshiyama, whereby reconsideration and withdrawal of the rejections thereof under 35 U.S.C. § 103 is respectfully requested.

Amended independent claim 13 recites that the ***optical indicia device is movable between a first position*** wherein the optical indicia device is located ***in the optical path, and a second position*** wherein the optical indicia device is located ***outside the optical path***. As discussed above, there is no teaching, suggestion, motivation, nor reasonable expectation of success in providing adjustment of the relative positions of the article 2 and the scale plate 4 of Hoshiyama. The Office Action proposes that providing means to remove the scale plate in Hoshiyama would have been obvious, referring to Fig. 6 as showing that it is known that it is useful to be able to view an article without viewing the scale, which is the purpose of the shutter 8B. Applicants believe the drawing being referenced in the Office Action is Fig. 4 of Hoshiyama, and note that neither this embodiment, nor the other embodiments of Hoshiyama provide selective adjustment of the scale plate 4 in and out of an optical path as set forth in claim 13.

Moreover, there is no suggestion or motivation for such adjustability in Hoshiyama. Rather, the scale plate 4 appears to be ***fixed*** in the optical path in Figs. 1A, 2, 3, 5, 6, and 7, and is ***fixed*** out of the path between the sensor 3 and the article 2 in Fig. 4. Furthermore, Hoshiyama Fig. 4 and the corresponding text do not appear to teach that the shutters 8A and 8B are opened at the same time, and therefore do not

suggest that it would have been useful to selectively image the article 2 and the scale plate 4. Thus, whereas Applicants' invention of claim 13 allows simultaneous viewing of the workpiece and the optical indicia device (e.g., when the optical indicia device is in the first position in the optical path), or of the workpiece alone (e.g., when the optical indicia device is in the second position outside the optical path), the embodiment in Fig. 4 of Hoshiyama appears to teach imaging of the article 2 only, **or of the scale plate 4 only**. In this regard, the text of Hoshiyama states that a predetermined portion of the article 2 and the relevant marks of the scale 4A are *selectively* detected in accordance with the switch-over of the shutters 8A and 8B (col. 5, lines 10-20). Thus, there is no clear and particular showing per In re Dembiczak of suggestion or motivation for modifying Hoshiyama according to Applicants' claim 13, absent impermissible hindsight based on Applicants' disclosure. Accordingly, Applicants submit that the subject matter of amended claim 13 is patentably distinct from Hoshiyama and respectfully request reconsideration and withdrawal of the rejection thereof under 35 U.S.C. § 103.

III. REJECTION OF CLAIMS 17-22, 24, AND 25 UNDER 35 U.S.C. § 103

Claims 17-22, 24, and 25 were rejected under 35 U.S.C. § 103 as unpatentable over Hoshiyama in view of U.S. Patent No. 4,185,298 to Billet et al., U. S. Patent No. 4,633,504 to Wihl, and U.S. Patent No. 6,067,154 to Hossain et al. Reconsideration and withdrawal of these rejections is requested for at least the following reasons.

Applicants respectfully submit that U.S. Patent No. 6,067,154 to Hossain et al., having an issue date of May 23, 2000, is not available prior art pursuant to 35 U.S.C. 103(c), which states as follows:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. 35 U.S.C. 103(c).

The present application serial number 09/634,302 and U.S. Patent No. 6,067,154 to Hossain et al. were, at the time the invention of application serial number 09/634,302 was made, assigned to advanced Micro Devices, Inc. Applicant notes that assignment of the present invention to Advanced Micro Devices, Inc. was recorded in the U.S. Patent Office at Reel/Frame number 011023/0420. Accordingly, the proposed combination of Hoshiyama with Billet et al., Wihl, and Hossain et al. is improper and Applicants respectfully request reconsideration and withdrawal of the rejection of claims 17-22, 24, and 25 in accordance with 35 U.S.C. § 103(c).

Applicants further note that combination of Hoshiyama with Billet et al. and Wihl does not render 17-22, 24, or 25 obvious. The Office Action posits on pages 3 and 4 that comparison of two workpieces or two areas of a single workpiece is known, and that using this comparison method with any defect measuring or locating system would have been obvious because it is a general technique which does not depend upon the details of the system. Applicants note that independent claims 17, 22, 24, and 25 do not merely recite comparison of two workpieces or two areas of a single workpiece. Rather, claim 17 is directed to a method of identifying and locating defects in a workpiece comprising correlating determining a location of a first defect using an optical indicia device, inspecting at least a portion of a second workpiece using the optical measurement device and the optical indicia device according to the location of the first defect in the first workpiece, and if a second defect exists in the inspected portion of the second workpiece, correlating the first and second defects according to the location of the first defect in the first workpiece. Applicants can find no teaching or suggestion of such combination of acts in Hoshiyama with Billet et al. and Wihl.

Independent claim 22 recites a method of identifying and locating defects in the workpiece, comprising ***correlating locations of a blank workpiece defect and a patterned workpiece defect in order to determine a cause of the patterned workpiece defect***. Independent claim 24 is directed to a method of identifying a defect in a blank workpiece, comprising ***viewing images of two portions of the workpiece through two of the transparent regions using the optical measurement device,***

comparing the images of the two portions of the workpiece, and identifying a defect in the workpiece in one of the two portions of the workpiece if there is a difference in the images of the two portions of the workpiece. Independent claim 20 provides an optical defect inspection system comprising defect location means ***selectively movable between a first position in the optical path*** between the viewing means and the workpiece, ***and a second position outside the optical path***. These claims are also believed to be patentably distinct from a combination of Hoshiyama with Billet et al. and Wihl, whereby Applicants respectfully request reconsideration and allowance thereof.

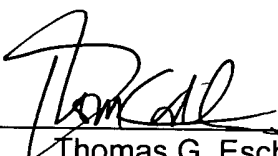
IV. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance, and notice thereof is respectfully requested.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, AMDP458US.

Respectfully submitted,
ESCHWEILER & ASSOCIATES, LLC

By 
Thomas G. Eschweiler
Reg. No. 36,981

National City Bank Building
629 Euclid Avenue, Suite 1210
Cleveland, Ohio 44114
(216) 502-0600

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: **Box Non-Fee Amendment** Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: November 14, 2002


Christine Gillroy

APPENDIX CONTAINING AMENDMENTS IN MARKED UP FORMAT

IN THE CLAIMS:

Please cancel claims 1-7,12, 14-16, and 23 without prejudice or disclaimer, and amend claims 8 and 13 as provided below.

8. (Amended) [The system of claim 7,]An optical defect inspection system for identifying and locating defects in a workpiece, comprising:

an optical measurement device adapted to view the workpiece along an optical path; and

an optical indicia device located in the optical path, adapted to provide location information with respect to a defect in the workpiece;

wherein the optical indicia device comprises a generally planar transparent member having non-transparent optical indicia defining a plurality of transparent regions in the optical indicia device along the optical path, wherein the optical indicia device is mounted in a first plane generally perpendicular to the optical path, and wherein the transparent member is movable with respect to the workpiece between a first position in the first plane, and a second position in a second plane, and wherein the second plane is parallel with the first plane.

13. (Amended) [The system of claim 7,]An optical defect inspection system for identifying and locating defects in a workpiece, comprising:

an optical measurement device adapted to view the workpiece along an optical path; and

an optical indicia device located in the optical path, adapted to provide location information with respect to a defect in the workpiece;

wherein the optical indicia device comprises a generally planar transparent member having non-transparent optical indicia defining a plurality of transparent regions in the optical indicia device along the optical path, wherein the optical indicia device is

mounted in a first plane generally perpendicular to the optical path, and wherein the optical indicia device is movable between a first position wherein the optical indicia device is located in the optical path, and a second position wherein the optical indicia device is located outside the optical path.